

High School Department

179TH EXAMINATION

ARITHMETIC

Thursday, October 1, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first five questions and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Simplify $\{2\frac{3}{4} \times 8\frac{1}{2} - 1 \div (6\frac{5}{8} + 5\frac{3}{8})\} \div 16\frac{1}{4}$
- 2 Find the simple interest of \$341 at $3\frac{1}{2}\%$ from December 15, 1902 to the present date.
- 3 A grocer lost 20% by selling 120 gallons of oil for \$1.62 less than cost; find the cost a gallon of the oil.
- 4 A bin 3 meters long, 1 meter 6 decimeters high and 1 meter 4 decimeters wide is $\frac{3}{4}$ full of wheat; how many hectoliters of grain are there in the bin?
- 5 Find the cost, @ 36¢ a square yard, of plastering the walls and ceiling of a room 16' 6" long, 15' wide and 11' high.
- 6 Multiply 9.613 by 25.74 and prove by division the correctness of your work.
- 7 Find the least common multiple of 850 and 969.
- 8 A commission merchant received \$71.91 which was a commission of 2%, for the purchase of grain @ 85¢ a bushel; find how many bushels of grain he purchased.
- 9 A pile of wood is 20' long, 4' wide and 8' high; find the cost of the wood at \$3.75 a cord.
- 10 A grocer bought 96 pounds of sugar @ 4½¢ a pound; he sold $\frac{1}{2}$ the sugar @ 5½¢, $\frac{1}{3}$ @ 6¼¢ and the remainder at cost. Find the grocer's whole gain.
- 11 A man receives an income of \$243 from an investment in $4\frac{1}{2}\%$ stock at $117\frac{1}{8}$, brokerage $\frac{1}{8}\%$; find the amount invested.
- 12 Find the proceeds of a 90 day note for \$142, without interest, dated August 27, 1903 and discounted today at 6%.
- 13 A premium of \$46.74 was paid for insuring a house at the rate of $\frac{3}{4}\%$; find the face of the policy.
- 14 How long must a rope be to reach from the top of a house 45' high to a point in the street 24' from the house?
- 15 Define fraction, factor, multiple, interest, negotiable note.